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## ABSTRACT OF THE DISCLOSURE

3 A method of forming a metal product. A metal alloy workpiece substrate is provided  
4 have pre-process dimensions. The dimensional differences are determined between the  
5 pre-process dimensions of the workpiece substrate and desired post-process dimensions  
6 of a post-process metal product formed from the workpiece substrate. A build-up  
7 thickness is determined of coating material required to obtain the desired post-process  
8 dimensions of the post-process metal product. A high-density coating process is  
9 performed to coat the workpiece substrate with a coating material to build-up a thickness  
10 of coating material effective to obtain desired finished dimensions after performing a  
11 sintering heat treatment process and/or a hot isostatic pressing treatment. The sintering  
12 heat treatment is performed on the coated workpiece substrate to densify the coating  
13 material. Then, the hot isostatic pressing treatment is performed to obtain the post-  
14 process metal product having the desired post-process dimensions and having diffusion  
15 bonding between the coating material and the workpiece substrate.